

## § 570.61

steering wheel in one direction until there is a perceptible movement of the wheel. If a point on the steering wheel rim moves more than the value shown in Table 1 before perceptible return movement of the wheel under observation, there is excessive lash or free play in the steering system.

TABLE 2. STEERING WHEEL FREE PLAY VALUES

Steering wheel diameter (inches)	Lash (inches)
16 or less .....	2
18 .....	2¼
20 .....	2½
22 .....	2¾

(b) *Linkage play.* Free play in the steering linkage shall not exceed the values shown in Table 3.

(1) *Inspection procedure.* Elevate the front end of the vehicle to load the ball joints, if the vehicle is so equipped. Insure that wheel bearings are correctly adjusted. Grasp the front and rear of a tire and attempt to turn the tire and wheel assemble left and right. If the free movement at the front or rear tread of the tire exceeds the applicable value shown in Table 3, there is excessive steering linkage play.

TABLE 3. FRONT WHEEL STEERING LINKAGE FREE PLAY

Nominal bead diameter or rim size (inches)	Play (inches)
16 or less .....	¼
16.01 through 18.00 .....	¾
18.01 or more .....	½

(c) *Free turning.* Steering wheels shall turn freely through the limit of travel in both directions.

(1) *Inspection procedure.* With the engine running on a vehicle with power steering, or the steerable wheels elevated on a vehicle without power steering, turn the steering wheel through the limit of travel in both directions. Feel for binding or jamming in the steering gear mechanism.

(d) *Alignment.* Toe-in or toe-out condition shall not be greater than 1.5 times the values listed in the vehicle manufacturer's service specification for alignment setting.

(1) *Inspection procedure.* Drive the vehicle over a sideslip indicator or measure with a tread gauge, and verify that

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the toe-in or toe-out is not greater than 1.5 times the values listed in the vehicle manufacturer's service specification.

(e) *Power steering system.* The power steering system shall not have cracked, frayed or slipping belts, chafed or abraded hoses, show signs of leakage or have insufficient fluid in the reservoir.

(1) *Inspection procedure.* Examine fluid reservoir, hoses and pump belts for the conditions indicated.

NOTE: Inspection of the suspension system must not precede the service brake performance test.

## § 570.61 Suspension system.

(a) *Suspension condition.* Ball joint seals shall not be cut or cracked, other than superficial surface cracks. Ball joints and kingpins shall not be bent or damaged. Stabilizer bars shall be connected. Springs shall not be broken and coil springs shall not be extended by spacers. Shock absorber mountings, shackles, and U-bolts shall be securely attached. Rubber bushings shall not be cracked, extruded out from or missing from suspension joints. Radius rods shall not be missing or damaged.

(1) *Inspection procedure.* Examine front and rear end suspension parts for the conditions indicated.

(b) *Shock absorber condition.* There shall be no oil on the shock absorber housings attributable to leakage by the seal.

(1) *Inspection procedure.* Examine shock absorbers for oil leakage from within.

## § 570.62 Tires.

(a) *Tread depth.* The tread shall be not less than four thirty-seconds of an inch deep on each front tire of any vehicle other than a trailer and not less than two thirty-seconds of an inch on all other tires.

(1) *Inspection procedure.* For tires with treadwear indicators, check for indicators in any two adjacent major grooves at three locations spaced approximately 120° apart around the circumference of the tire. For tires without treadwear indicators, measure the tread depth with a suitable gauge or scale in two adjacent major grooves at 3 locations spaced approximately 120°

apart around the circumference of the tire at the area of greatest wear.

(b) *Type*. Vehicles should be equipped with tires on the same axle that are matched in construction and tire size designation, and dual tires shall be matched for overall diameter within one-half inch.

(1) *Inspection procedure*. Examine visually. A mismatch in size and construction between tires on the same axle, or a major deviation from the size recommended by the vehicle or tire manufacturer, is a cause for rejection. On a dual-tire arrangement the diameter of one of the duals must be within one-half inch of the other as measured by a gauge block inserted between the tire and a caliper.

(c) *General condition*. Tires shall be free from chunking, bumps, knots, or bulges evidencing cord, ply or tread separation from the casing.

(1) *Inspection procedure*. Examine visually for the conditions indicated.

(d) *Damage*. Tire cords or belting materials shall not be exposed, either to the naked eye or when cuts on the tire are probed. Reinforcement repairs to the cord body are allowable on tires other than front-mounted tires.

(1) *Inspection procedure*. Examine visually for the conditions indicated, using a blunt instrument if necessary to probe cuts and abrasions.

(e) *Special purpose tires*. Tires marked "Not For Highway Use" or "Farm Use Only" or other such restrictions shall not be used on any motor vehicles operating on public highways.

(1) *Inspection procedure*. Examine visually for tires labeled with specific restrictions.

#### § 570.63 Wheel assemblies.

(a) *Wheel integrity*. A tire rim, wheel disc or spider shall have no visible cracks, elongated bolt holes, or indications of in-service repair by welding.

(1) *Inspection procedure*. Examine visually for the conditions indicated.

(b) *Cast wheels*. Cast wheels shall not be cracked or show evidence of excessive wear in the clamp area.

(1) *Inspection procedure*. Examine visually for the conditions indicated.

(c) *Mounting*. All wheel nuts shall be in place and tight.

(1) *Inspection procedure*. Check wheel retention for the conditions indicated.

## PART 571—FEDERAL MOTOR VEHICLE SAFETY STANDARDS

### Subpart A—General

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571.1 Scope.

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### Subpart B—Federal Motor Vehicle Safety Standards

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571.108 Standard No. 108; Lamps, reflective devices, and associated equipment.

571.109 Standard No. 109; New pneumatic and certain specialty tires.

571.110 Tire selection and rims and motor home/recreation vehicle trailer load carrying capacity information for motor vehicles with a GVWR of 4,536 kilograms (10,000 pounds) or less.

571.111 Standard No. 111; Rearview mirrors.

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571.117 Standard No. 117; Retreaded pneumatic tires.

571.118 Standard No. 118; Power-operated window, partition, and roof panel systems.

571.119 Standard No. 119; New pneumatic tires for motor vehicles with a GVWR of more than 4,536 kilograms (10,000 pounds) and motorcycles.

571.120 Tire selection and rims and motor home/recreation vehicle trailer load carrying capacity information for motor vehicles with a GVWR of more than 4,536 kilograms (10,000 pounds).

571.121 Standard No. 121; Air brake systems.